

REMARKS

The Examiner has stated that the information disclosure statement filed 11/12/03 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. In response, applicant submits that the reference(s) was indeed included in a "list" per 37 CFR 1.98(a)(1). However, the use of a FORM 1449 was purposefully avoided in view of the following MPEP section:

Applicants may wish to list U.S. patent application numbers on other than a form PTO-1449 or PTO/SB/08A and 08B format to avoid the application numbers of pending applications being published on the patent. MPEP 609 (D)

Consideration of the information disclosure statement filed 11/12/03 is respectfully requested.

The Examiner has stated that the information disclosure statement filed 11/26/03 fails to comply with 37 CFR 1.98(a)(2), since it allegedly failed to include copies of references. Applicant respectfully disagrees, and asserts that the references were indeed submitted. Nevertheless, submitted recently was another copy of such information disclosure statement for consideration by the Examiner.

The Examiner has objected to the specification and claims. Such objections are deemed to be moot in view of the clarifications made hereinabove to the specification and claims.

The Examiner has further rejected Claims 1, 3-14, 16 and 18 under 35 U.S.C. 102(b) as being anticipated by Tanaka (US Patent Number: 6,100,589). Applicant respectfully disagrees with such rejection.

Specifically, the Examiner relies on internal circuit 1500 to make a prior art showing of applicant's claimed "active circuit" and then relies on an electrode 200 to make a prior art showing of applicant's claimed "metal layer." Note Figure 11 from Tanaka below. It should be further noted that, when reviewing the figure below, Tanaka considers the electrode 200 to be part of a bond pad, which is referred to as item 1400 in Figure 11.

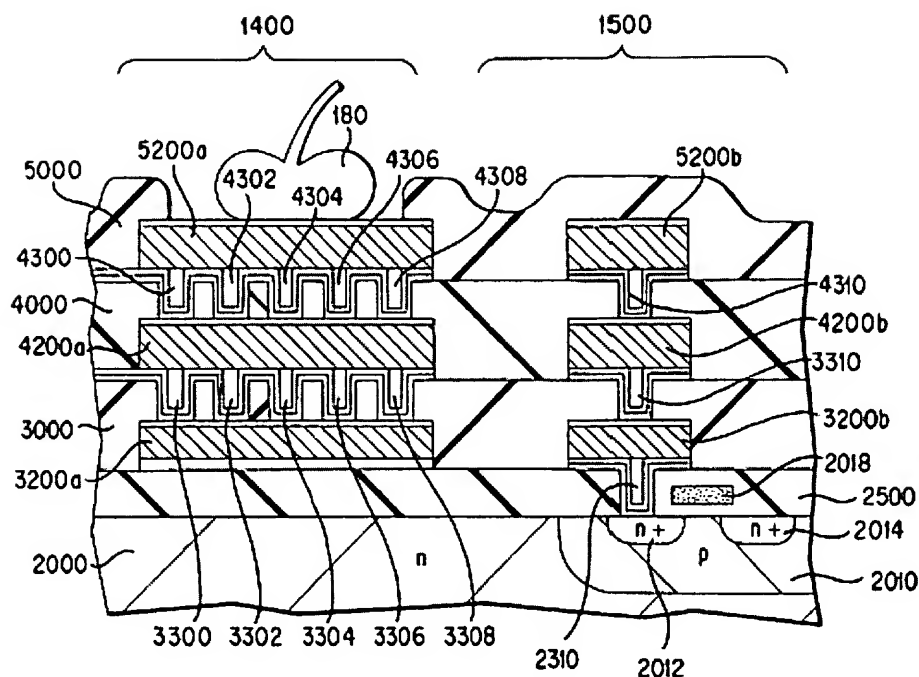


FIG. 11

Thus, given the Examiner's mapping between applicant's claim terms and the components shown above in Tanaka, the Examiner's proposed reference clearly fails to meet applicant's claimed "metal layer disposed, at least partially, above the active circuit." Specifically, the electrode 200 of the bond pad 1400 (mapped to applicant's metal layer) is disposed directly to the side of (not above) the internal circuit 1500 (mapped to applicant's active circuit). Thus, it is clear that Tanaka fails to even suggest any sort of metal layer disposed, at least partially, above the active circuit, as claimed.

In fact, it appears that the Tanaka prior art is merely cumulative with respect to the prior art identified in applicant's background section of the originally filed specification. This is clearly evidenced by the side-by-side comparison below of Figure 11 of Tanaka and Figure 2 of applicant's originally filed specification.

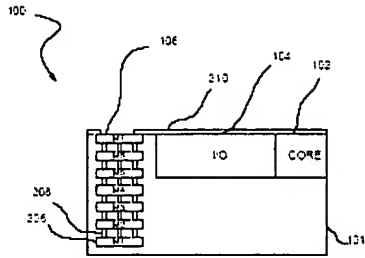


FIG. 2
(Prior Art)

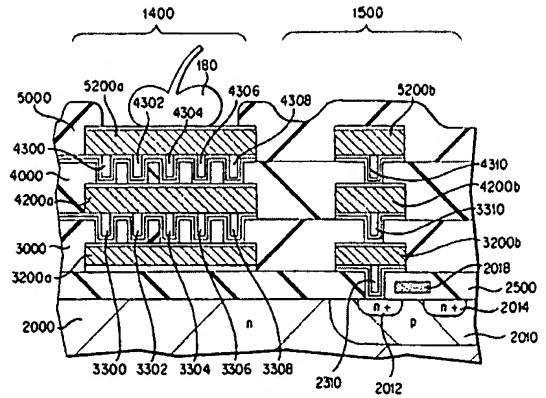


FIG. 11

Still yet, the Examiner makes a blanket, unsupported statement that Tanaka discloses a metal layer that defines a “frame.” Applicant respectfully disagrees with this assertion. Following is an exemplary definition of a “frame,” which provides illustrative evidence of the plain and ordinary meaning thereof.

frame (n)

- a. An open structure or rim for encasing, holding, or bordering: a window frame; the frame of a mirror.
- b. A closed, often rectangular border of drawn or printed lines.

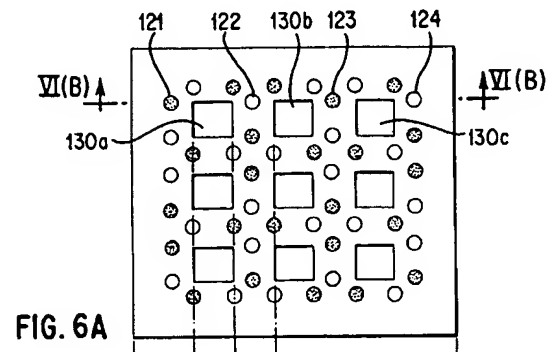
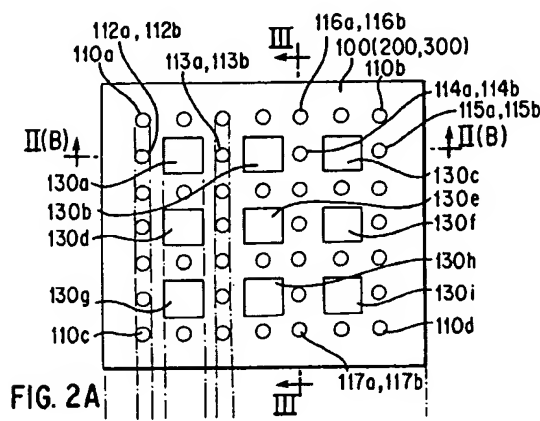
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Clearly, the meshed configuration of Tanaka fails to meet applicant’s claimed “frame” with an open structure or rim for bordering, etc.

The Examiner is reminded that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, the identical invention must be shown in as complete detail as contained in the claim. *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

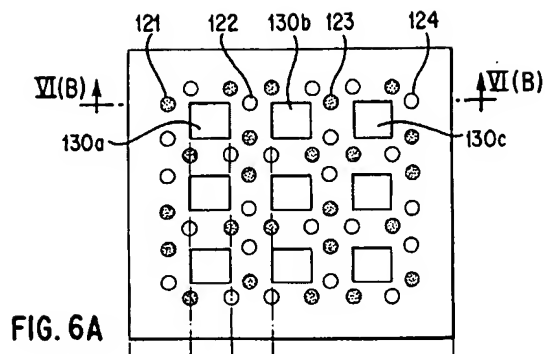
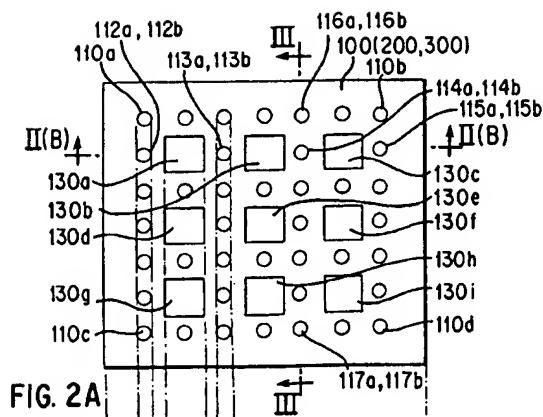
This criterion has simply not been met by the Tanaka reference. A notice of allowance or a specific prior art showing of all of applicant's claim limitations, in combination with the remaining claim elements, is respectfully requested.

With respect to the dependent claims, applicant has carefully reviewed the excerpts relied upon by the Examiner to reject the same, and has found serious deficiencies in the Examiner's application of the prior art. Just by way of example, the Examiner relies on Tanaka to meet applicant's claimed "wherein the frame defines an outer periphery and an inner periphery." (see Claim 7 et al.). Following are pertinent figures from Tanaka.



Clearly, Tanaka fails to even suggest applicant's claimed "frame," let alone a frame that "defines an outer periphery and an inner periphery" (emphasis added). There is simply no suggestion in Tanaka of an inner periphery, as claimed by applicant.

Still yet, the Examiner relies on Tanaka to meet applicant's claimed "wherein the metal layer defines an island formed within and spaced from the inner periphery of the frame of the metal layer." (see Claim 9 et al.). Again, following are pertinent figures from Tanaka.



Again, Tanaka fails to even suggest applicant's claimed frame that "defines an outer periphery and an inner periphery," let alone a metal layer that defines "an island formed within and spaced from the inner periphery of the frame of the metal layer" (emphasis added).

Once more, the aforementioned anticipation criterion has not been met. A notice of allowance or a specific prior art showing of all of applicant's claim limitations, in combination with the remaining claim elements, is respectfully requested.

The Examiner has further rejected Claims 2 and 17 under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US Patent Number: 6,100,589), in view of Applicant's Admitted Prior Art of Figures 1-2. Applicant respectfully disagrees with such rejection.

Specifically, the Examiner admits that Tanaka does not disclose the active circuit including an input/output bus and a plurality of vertically spaced underlying metal layers, at least partially, under the active circuit. The Examiner goes on to allege that Applicant's Admitted Prior Art of Figures 1-2 discloses an active circuit including an input/output bus and a plurality of vertically spaced underlying metal layers, at least partially, under the active circuit. Applicant respectfully disagrees with this assertion. Following is Prior Art Figure 2 from Applicant's Admitted Prior Art.

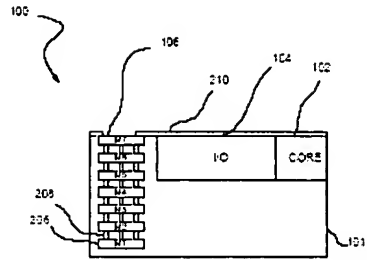


FIG. 2
(Prior Art)

Contrary to the Examiner's assertion, such figure clearly shows an active circuit including an input/output bus, and a plurality of metal layers that are side-by-side. Such metal layers are clearly not positioned under the active circuit.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir.1991).

Applicant respectfully asserts that at least the third element of the *prima facie* case of obviousness has not been met, since the prior art references, when combined, fail to teach or suggest all of the claim limitations, as noted above. A notice of allowance or a specific prior art showing of all of applicant's claim limitations, in combination with the remaining claim elements, is respectfully requested.

Still yet, applicant brings to the Examiner's attention the following additional dependent claims that have been added for full consideration:

“wherein the metal layer is disposed, at least partially, above the active circuit along a vertical axis” (see Claim 24);

“wherein the metal layer is disposed, at least partially, directly above the active circuit” (see Claim 25);

“wherein the inter-metal dielectric layer is constructed from a low-K dielectric material” (see Claim 26);

“wherein the inter-metal dielectric layer is constructed from a fluorinated silica glass (FSG) material” (see Claim 27);

“wherein the frame ensures that bonds are capable of being placed over the active circuit without damage thereto during a bonding process.” (see Claim 28);

wherein the island is spaced from the frame with a continuous, uninterrupted space therebetween” (see Claim 29); and

“wherein the inner periphery of the frame is continuous and defines a single, central rectangular space” (see Claim 30).

Yet again, a notice of allowance or a specific prior art showing of all of applicant’s claim limitations, in combination with the remaining claim elements, is respectfully requested.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 971-2573. For payment of any additional fees due in connection with the filing of this paper, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1351 (Order No. NVIDP235/P000846).

Respectfully submitted,

By: _____

Date: 8/10/5

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